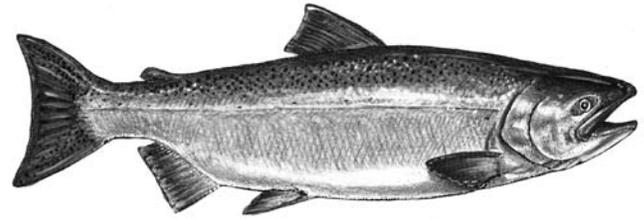


Common Mistakes in HACCP



Hot Smoked Salmon

Disclaimer: This information supplements Hazard Analysis and Critical Control Point (HACCP) training, which is available through the Alaska Sea Grant Marine Advisory Program at www.uaf.edu/map/haccp.html. Regulations are occasionally changed and subject to interpretation by consumers and agencies.

#1 Not calibrating your thermometer correctly

The recording cook probe thermometer must continually monitor smoker temperatures and must be visually verified at least once per batch. To calibrate, place the probe next to a control National Institute of Standards and Technology (NIST) traceable thermometer, or in ice water slurry for freezing point, and boiling water for boiling point. The calibration and any corrections must be documented.

#2 Placing the thermometer incorrectly

The thermometer should be placed in the coldest spot of your smoker, which can be determined by a study, and in the thickest piece of fish.

#3 Not having a heat distribution study

Each smoking oven should be checked by a process authority, manufacturer, or independent study to determine cold spots before use and after any modification.

#4 Listing the wrong hazard in frozen product

Pathogens should be controlled through good SSOPs (sanitation standard operating procedures) and the heating step. Your HACCP plan should control potential hazards that are reasonably likely to occur. (Parasites are not reasonably likely to occur as a hazard because the product will be cooked adequately during the smoking step.)

#5 Not evaluating all the hazards in refrigerated product

If you are producing refrigerated, vacuum-packed smoked salmon your hazard analysis must evaluate the potential species hazard of parasites, and potential process hazards of pathogen growth, *Clostridium botulinum* growth and toxin production, metal inclusion, and allergens/additives.

#6 Labeling refrigerated products incorrectly

Clostridium botulinum can grow at 38°Fahrenheit. Your label must specify, "Keep refrigerated below 38°F" as required by state

regulation. Refrigerated product must also contain the appropriate amount of water phase salt (WPS) with or without sodium nitrite, or each package must have a time temperature indicator (TTI) attached. While product is in your control, you must have continuous monitoring of refrigeration storage temperatures.

#7 Not preventing the potential for cross-contamination

The flow in the processing plant must adequately separate the finished product from all raw product in order to prevent cross contamination with pathogens, especially *Listeria monocytogenes*. This is particularly important after the heating step where there are no competing spoilage bacteria on the product.

#8 Inadequate water phase salt testing

Testing for WPS must occur on a periodic schedule, and must be documented as verification. If you don't want to control WPS, all product must be frozen immediately after packaging and maintained frozen, and must be appropriately labeled, "Important, keep frozen until used, thaw under refrigeration immediately before use." Or follow the requirements listed in #6 above.

#9 Incorrect water phase salt levels

The current recommendations for refrigerated, vacuum packaged products are 3.5% WPS or 3.0% WPS with at least 100 ppm nitrite. If these limits are not met the product must be frozen and appropriately labeled. (Sources for these concentrations are www.cfsan.fda.gov/~comm/ift2conc.html, and page 177 of the Hazards Guide*.)

#10 Misusing time temperature indicators

There must be appropriate directions on each package to interpret the TTIs when they are used.

*U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Fish and Fisheries Products Hazards and Controls Guidance, Third Edition, June 2001.

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Common Mistakes in **HACCP**

Processors trained in HACCP will find these supplements useful. Single-page handouts tell how to avoid mistakes that are commonly made in the processing plant. The handouts clarify questions asked by processors, to help them meet HACCP requirements. Get free copies online at www.uaf.edu/seagrant/bookstore/pubs/ASG-38to41.html. Or call 1-888-789-0090 to order printed copies.

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